

Claims

- [1] A sterilizer for dental handpieces comprising:
a casing assembly having an opening formed at the front side for coming in and going out of a handpiece;
a door configured such that an ultraviolet barrier incised in a radial shape opens and closes the front opening of the casing assembly;
a transparent tube installed inside the casing assembly in order to be fluid-communicatively connected with the door to put a handpiece thereon;
a sensor installed on the brim of the opening at the front side of the casing assembly;
an ultraviolet lamp installed inside the casing assembly;
a control circuit for controlling the overall operation of the sterilizer in such a manner that it opens the ultraviolet barrier when it confirms the approach of the handpiece by the sensor, closes the ultraviolet barrier after the handpiece has been entered, turns on the ultraviolet lamp for a predetermined time, turns off the lamp, opens the ultraviolet barrier again, and closes the ultraviolet barrier after the handpiece has been withdrawn; and
a motor for opening and closing the door in response to a control signal generated from the control circuit.
- [2] A sterilizer for dental handpieces according to claim 1, wherein the control circuit further comprises a function of calculating the entering speed or thickness of a handpiece by the signal entering from the sensor and controlling the opening speed of the door according to the calculated value.
- [3] A sterilizer for dental handpieces comprising:
a casing assembly having an opening formed at the front side for coming in and going out of the handpiece;
a door configured such that the ultraviolet barrier incised in a radial shape opens and closes the front opening of the casing assembly, and the ultraviolet barrier is opened while waiting and after completion of sterilization, and the ultraviolet barrier is closed while sterilizing;
a transparent tube installed inside the casing assembly in order to be fluid-communicatively connected with the door to put a handpiece thereon;
a sensor installed around the transparent tube inside the casing assembly;
an ultraviolet lamp installed inside the casing assembly;
a control circuit controlling the overall operation of the sterilizer in such a manner that it closes the ultraviolet barrier when the entrance of the handpiece has been confirmed by the sensor, turns on the ultraviolet lamp for a pre-

determined time and turns off the lamp, and opens the ultraviolet barrier again;
and

a motor for opening and closing the door in response to a control signal
generated from the control circuit.

- [4] A sterilizer for dental handpieces according to any one of claims 1 to 3, wherein a reflection protector for preventing the leakage of ultraviolet rays is installed inside the casing assembly, in which the transparent tube and the ultraviolet lamp are inserted.
- [5] A sterilizer for dental handpieces according to any one of claims 1 to 3, further comprising a ventilating fan provided at one side of the casing assembly, for exhausting the heat generated by ultraviolet lamps.
- [6] A sterilizer for dental handpieces according to any one of claims 1 to 3, further comprising a file tray having multiple file holes provided at one side of the casing assembly, the file tray being opened and closed by a cover and being sterilized with dental files inserted therein.
- [7] A sterilizer for dental handpieces according to claim 6, further comprising an aromatic tray near the ventilating fan, wherein the aroma tray is received in a drawer fashion and contains aromas inside.